

Title (en)
Core member for a cylindrical lithium secondary battery

Title (de)
Zentrales Kernstück für eine zylindrische sekundäre Lithium Batterie

Title (fr)
Noyau pour une pile secondaire au lithium cylindrique

Publication
EP 1717878 B1 20080806 (EN)

Application
EP 06113177 A 20060427

Priority
• KR 20050035301 A 20050427
• KR 20050041422 A 20050518

Abstract (en)
[origin: EP1717878A1] A cylindrical lithium secondary battery includes an electrode assembly which has a first electrode plate, a second electrode plate, and a separator provided between the first electrode plate and the second electrode plate, is wound in a spiral shape, and has a central space at the center of winding; a core member which is inserted into the central space of the electrode assembly; a case having a space for containing the electrode assembly; and a cap assembly which is connected to an upper portion of the case so as to seal the case. The core member is formed in a tube shape having a gap along a longitudinal direction, which divides the core member into a body portion and left and right lateral end portions, wherein an imaginary arc line extending from an outer circumferential surface of the body portion of the core member defines an imaginary circumference, and wherein the left and right lateral end portions are located inside the imaginary circumference and comprise a pair of first bending portions, inwardly bending and symmetrically disposed with respect to the gap, and a pair of second bending portions bending in a rotation direction that is opposite to the inwardly bending rotational directions of the first bending portions.

IPC 8 full level
H01M 2/00 (2006.01); **H01M 10/05** (2010.01); **H01M 10/052** (2010.01); **H01M 10/0525** (2010.01); **H01M 10/0587** (2010.01); **H01M 10/40** (2006.01)

CPC (source: EP US)
H01M 10/0431 (2013.01 - EP US); **H01M 10/0525** (2013.01 - EP US); **H01M 10/0587** (2013.01 - EP US); **H01M 50/578** (2021.01 - EP US); **H01M 50/107** (2021.01 - EP US); **Y02E 60/10** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Cited by
EP2323192A1; CN103387160A; CN114171777A; WO2023144178A1; US8574749B2

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 1717878 A1 20061102; **EP 1717878 B1 20080806**; DE 602006002054 D1 20080918; DE 602006007382 D1 20090730; DE 602006007490 D1 20090806; EP 1968134 A1 20080910; EP 1968134 B1 20090624; EP 1968135 A1 20080910; EP 1968135 B1 20090617; JP 2006310301 A 20061109; JP 5022621 B2 20120912; US 2006263673 A1 20061123; US 7655349 B2 20100202

DOCDB simple family (application)
EP 06113177 A 20060427; DE 602006002054 T 20060427; DE 602006007382 T 20060427; DE 602006007490 T 20060427; EP 08154358 A 20060427; EP 08154360 A 20060427; JP 2006113274 A 20060417; US 40903106 A 20060424